

## CLAIMS

What is claimed is:

- 5           1.    A display projection system comprising:  
          an image generator for providing a beam, said beam  
          comprising data to be displayed; and  
          an optical component to provide collimation of said beam,  
          wherein said data is viewable via a projected display and said  
10   display projection system is implementable in a portable  
          electronic device.
2.    The display projection system as recited in Claim 1  
          further comprises an optional optical attenuator.
- 15           3.    The display projection system as recited in Claim 1  
          further comprises an adjustable reflecting mechanism for  
          directing said beam.
- 20           4.    The display projection system as recited in Claim 1  
          wherein said image generator is laser-type image generator.
5.    The display projection system as recited in Claim 4  
          further comprises a scanning mechanism for painting said beam.
- 25           6.    The display projection system as recited in Claim 1  
          wherein said image generator is a transmissive liquid crystal  
          display projection image generator.
- 30           7.    The display projection system as recited in Claim 1  
          wherein said image generator is a reflective digital light  
          panel projection image generator.

8. The display projection system as recited in Claim 3 wherein said adjustable reflecting mechanism is further adapted to control said scanning of said beam.

5 9. The display projection system as recited in Claim 3 wherein said adjustable reflecting mechanism is further adapted to focus said image generated.

10 10. A display system for providing a projected display for a portable electronic device comprising:

an image generator coupled to said portable electronic device, said image generator for providing a beam, said beam comprising data for display; and

an optical component coupled to said portable electronic device for collimation of said beam, wherein said beam is projected such that said data is viewable via said projected display.

11. The display system of Claim 10 further comprises an optional optical attenuator.

12. The display system of Claim 10 further comprising an adjustable reflecting mechanism for directing said beam and for directing a scanning mechanism, said adjustable reflecting mechanism further adapted to provide focusing of said projected display

13. The display system of Claim 10 wherein said image generator is a laser-type image generator, wherein said laser-type image generator further comprises a scanning mechanism coupled to said portable electronic device for painting said beam.

14. The display system of Claim 10 wherein said image generator is a transmissive liquid crystal display projection image generator.

5 15. The display system of Claim 10 wherein said image generator is a reflective digital light panel projection image generator.

16. A portable electronic device comprising:

10 a communication device coupled to said portable electronic device enabling intercommunication with other electronic devices;

an input device coupled to said portable electronic device;

15 a verbal input device coupled to said portable electronic device for receiving voice commands; and

a display system coupled to said portable electronic device for providing a projected display comprising:

20 an image generator for providing a beam, said beam comprising data for display; and

an optical component for collimation of said beam;

wherein said display system projects said data, such that said data is viewable in a projected display, said display  
25 projected onto a surface, said surface external of said portable electronic device.

17. The portable electronic device of Claim 16 wherein said display system further comprises an adjustable reflecting  
30 mechanism for directing said beam and directing a scanning mechanism.

18. The portable electronic device of Claim 16 wherein said display system further comprises an optional optical attenuator.

5 19. The portable electronic device of Claim 16 wherein said communication device is a wireless communication device.

20. The portable electronic device of Claim 16 wherein said wireless communication device is a Bluetooth device.

10 21. The portable electronic device of Claim 16 wherein said input device is configured as a handwriting memory device.

22. The portable electronic device of Claim 16 wherein said input device is configured as a optical character recognition device.

20 23. The portable electronic device of Claim 16 wherein said image generator is a laser-type image generator.

24. The portable electronic device of Claim 23 wherein said laser-type generator further comprises a scanning mechanism for painting said beam.

25 25. The portable electronic device of Claim 16 wherein said image generator is a transmissive liquid crystal display projection image generator.

30 26 The portable electronic device of Claim 16 wherein said image generator is a reflective digital panel projection image generator.

27. The portable electronic device of Claim 16 wherein the shape and size of said portable electronic device is pen-like.

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